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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,416	10/25/2000	Charles David Kelley	62430 US 1	2171

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PIPER RUDNICK LLP  
Supervisor, Patent Prosecution Services  
1200 Nineteenth Street, NW  
Washington, DC 20036-2412

EXAMINER

CHOOBIN, BARRY

ART UNIT PAPER NUMBER

2625

DATE MAILED: 05/19/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/695,416

**Applicant(s)**

KELLEY, CHARLES DAVID

**Examiner**

Barry Choobin

**Art Unit**

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: .

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 28, 2004 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chu et al (US Patent 5,717,778) in view of Madsen et al (US 5,872,942).

As to claim 1, Chu et al disclose a method of evaluating data, which has been scanned to create an image, which is stored in a memory represented as an array having at least two dimensions, comprising:

- (a) defining a subset of the an-array as a portion of the image having at least first and second dimensions (column 9, lines 11 – 26);
- (b) deriving a value for the defined subset of the array (column 9, lines 11 – 26).

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However, Chu et al fail to disclose steps c – e including moving a position of the subset in at least one direction without increasing the overall dimensions of the subset.

But on the other hand, Madsen et al disclose steps c – e including moving a position of the subset in at least one direction without increasing the overall dimensions of the subset (column 10, lines 9-35) in order to cover all columns of pixels corresponding to the expected spacing between adjacent target objects in a row.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the method of Madsen et al with Chu et al in order increase the degree of reliability and objectivity the testing of the resolution capability of medical imagers. (Column 7, lines 15-20).

(d) deriving a value for the moved subset of the array (column 8, lines 50-58); and (e) repeating steps (c) and (d) to obtain derived values for additional subsets of the image (column 9, lines 1-3).

As to claim 3, Madsen et al disclose the derived values for each subset of the scanned image are stored in a computer memory (refer for example to column 8, lines 50-53).

As to claim 4, Madsen et al disclose the steps of creating a look-up table for calibrating the scanned image to a standard, and substituting the value in the look-up table for the derived values (refer for example to column 20, lines 49-56).

As to claim 5, Chu et al disclose portion of the array represents the gray level of the corresponding portion of the image (refer for example to column 9, lines 11 – 25).

As to claims 6 and 15, Chu et al disclose the step of deriving includes taking the mathematical average of the gray level for each portion of the array in the subset (column 9, lines 40 – 55).

As to claims 7 and 18, Madsen et al disclose the data has been scanned using a scanner selected from the group consisting of (a) flatbed scanners, (b) scanners where the data moves along a generally straight path, and (c) scanners where the data moves along a curved path (Fig.1).

As to claim 8, Chu et al disclose the data represents a sample, which has been subjected to electrophoresis (see abstract).

As to claims 10 and 14, Chu et al disclose the standard is a neutral density optical calibrator (column 12, lines 28 – 41).

As to claims 11 and 16, Chu et al disclose the scanned image is converted into a plurality of data points defining a curve (column 12, lines 28 – 41).

As to claims 12 and 17, Chu et al disclose the area under the curve is determined by integration (refer for example to Fig.6, and column 12, lines 27 - 41 wherein the curve is the data points which are tabulated and plotted).

As to claim 13, claim 13 is similar to claim 1 with an additional limitation, that “deriving a value for the optical density of the pixels in the defined subset of the array”. Chu et al disclose measurement density of the analyte and the background region of the digital image to obtain the total optical density of the portion of the digital image (column 9, lines 26 – 39).

Claims 2 and 9 are similarly analyzed and rejected.

**CONTACT INFORMATION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Barry Choobin  
May 7, 2004

**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**